

ABSTRACT OF THE DISCLOSURE

Skew angle in a document image is estimated using operators known from mathematical morphology. Skew angle in a document image (A) is estimated by run-length smoothing the image and then producing a plurality of eroded run-length-smoothed images. The run-length-smoothed image ($RLSA(A)$) is eroded using a linear structuring element (k_2L_α) oriented at each of a plurality of different angles (α). The angle of the linear structuring element which produces an eroded image having the greatest surface area is designated as the skew angle. A plurality of run-length-smoothed images ($RLSA_\alpha(A)$) may be produced, each generated by smoothing the document image using a linear structuring element (k_1L_α) oriented at a respective different angle (α_i). Then each run-length smoothed image ($RLSA_\alpha(A)$) is eroded using a linear structuring element oriented at the corresponding angle (α_i).